

IMAGE SENSORS WITH MULTIPLE INTEGRATION/READ CYCLES

Abstract of the Disclosure

A method of operating a solid state image sensor having an image sensing array that includes a plurality of active pixels comprises resetting each pixel, and after successive time periods reading outputs from each pixel to obtain multiple sets of image data having different dynamic ranges without resetting the pixels between the successive time periods. The sets of image data are combined to obtain a resultant set of image data having a further dynamic range different from the individual dynamic ranges of the multiple data sets. Images are obtained having low noise, a wide dynamic range, and are resistant to lighting-induced flicker.